



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
28.03.2001 Bulletin 2001/13

(51) Int. Cl.⁷: **B41J 2/04**, B41J 2/14

(43) Date of publication A2:
14.06.2000 Bulletin 2000/24

(21) Application number: 99309013.3

(22) Date of filing: 12.11.1999

(84) Designated Contracting States:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE
Designated Extension States:
AL LT LV MK RO SI

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(30) Priority: 09.12.1998 IL 12748498

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(54) **Laser-initiated ink-jet printing method and apparatus**

(57) A printing device including a laser (10) for generating at least one laser beam, a controller, a print head (16) having a plurality of orifices (32), and an ink supply for supplying ink to the print head. The controller modulates the at least one modulated laser beam according to image data to be printed. The at least one modulated laser beam selectively generates a directional acoustic wave within the print head, thereby inducing an ink droplet to exit a selected one of the orifices onto a printing substrate. A print head including a single buffer chamber (26), a body (28), and a single ink chamber (30). The buffer chamber stores a buffer liquid therein with the body forming one wall of that chamber. The ink chamber shares the body as a wall. The ink chamber stores ink therein and has a plurality of orifices on a wall opposite to the body.

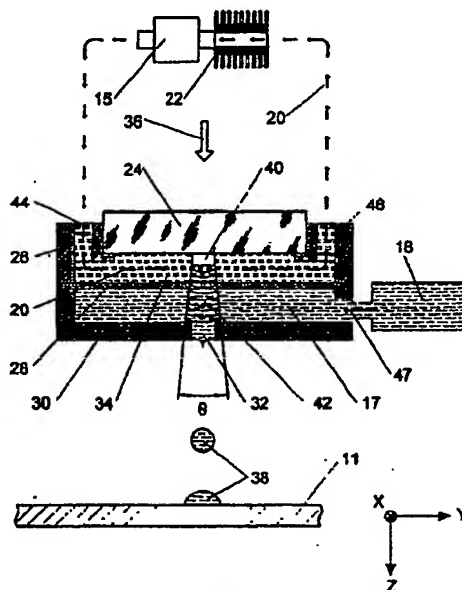


Figure 3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 99 30 9013

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The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 8 February 2001	Examiner Meulemans, J-P
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons</p> <p>S : member of the same patent family, corresponding document</p>			

EPO FORM 1503 (03.02.2001)

**ANNEX TO THE EUROPEAN SEARCH REPORT
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